

LONG ISLAND BIOLOGICAL ASSOCIATION  
COLD SPRING HARBOR, LONG ISLAND

THE BIOLOGICAL LABORATORY

January 15, 1953

Dr. J. Lederberg  
Genetics Department  
University of Wisconsin  
Madison, Wisconsin

Dear Dr. Lederberg:

The purpose of this letter is to invite you to participate in the XVIIIth Symposium on Quantitative Biology at Cold Spring Harbor, June 5 to 11, 1953. The topic of the meeting is to be "Viruses."

The program deals with certain basic concepts of virus research, starting with the states of viruses (infective virus, vegetative virus, and provirus) and the transitions between these states. It is felt that one of the principal purposes of this Symposium should be a clear exposition of the evidence for the existence of different states of viruses, and a reinterpretation of many previous observations in the light of newly developed concepts. Another important purpose is to bring together workers doing research on animal, bacterial, and plant viruses for free discussion of the many problems they have in common.

A copy of the tentative program is enclosed. It has been worked out by Dr. Max Delbrück in cooperation with several collaborators. We propose to have two or three papers by invited speakers, followed by discussions, on each of the seven days of the meeting. Each day's chairman will preside at the sessions, and will correlate the discussions for publication.

The National Foundation for Infantile Paralysis has generously agreed to sponsor this Symposium. You will be allowed a maximum travel allowance of \$ 108.22 for transportation to New York City, and \$ 15.00 for incidentals, including local transportation. The National Foundation will take care of your living expenses in Cold Spring Harbor during the seven days of the Symposium.

I hope that you will find it possible to take part in the Symposium, and I will appreciate your filling out the enclosed sheet and returning it to me at your earliest convenience.

Sincerely yours,



M. Demerec, Director

MD:eb  
Enclosures

TENTATIVE PROGRAM  
XVIIIth Cold Spring Harbor Symposium on Quantitative Biology

Friday, June 5, to Thursday, June 11, 1953

VIRUSES

Friday, June 5. Chairman: E. L. Tatum

Introductory Remarks About the Program

M. Delbrück

Virus in the Vegetative State and Its Maturation

A. H. Doermann: The existence of vegetative phage, as inferred from intracellular growth curves and from genetic recombination experiments.

Discussion: Visconti (effects of timing on genetic ratios); Dulbecco (experiments with T3); Appleby, Hirst (experiments with Influenza).

C. Levinthal: Maturation of phage. Evidence regarding transitional forms between vegetative and mature phage.

W. Henle: Maturation in animal viruses.

Discussion: Schlesinger, Sanders.

Saturday, June 6. Chairman: F. K. Sanders

Provirus

J. Bertani: The distinction between the prophage state and the vegetative state. Compatibility relations between different prophages.

Discussion: Schlesinger (applications to animal viruses).

W. Hayes: The mechanism of genetic recombination in bacteria.

Discussion: Appleyard, Lederberg (interrelations between phage and bacterial recombination)

The Transition from Provirus to Vegetative Virus

F. Jacob: Induction in lysogenic strains of bacteria.

Discussion: Lwoff (theory of induction); Lieb (transition from infective state to prophage state).

Sunday, June 7. Chairman: R. Herriott

The Transition from the Infective to the Vegetative State

A. D. Hershey: The injection of DNA.

R. Markham: Chemistry of functional components of viruses.

Discussion: Hirst (enzymatic attack of the Influenza virus on the host cell); Mommaerts (enzymatic attack of the avian erythromyoblastic leukosis); Puck (attachment of viruses to their host cell).

Afternoon Free

Monday, June 8. Chairman: J. Beard

#### Structure of Viruses

R. C. Williams: Morphology of Viruses.

Mark Adams: Evidence on structure from effects of ionic environment on viruses.

Discussion: T. F. Anderson (osmotic effects).

F. Lanni: Virus antigens as associated with structural and functional components of viruses.

Tuesday, June 9. Chairman: A. Lwoff

#### Biochemical Studies of Virus Infections

L. M. Kozloff: Source and fate of phage materials.

Discussion: B. Commoner (experiments with tobacco mosaic virus).

S. S. Cohen: Metabolic changes in the host induced by virus infections.

#### Host-controlled Variations of Viruses

S. E. Luria: Analysis of host-controlled variations in phages and a discussion of various observations with animal viruses possibly related to it.

Wednesday, June 10. Chairman: G. Hirst

G. Bowen: UV inactivation, photoreactivation, and multiplicity reactivation.

N. Zinder: Type transformations induced by DNA preparations and transduction of genetic markers by phage.

Afternoon Free

Thursday, June 11. Chairman: J. Enders

#### Viruses in Tissue Culture

R. Dulbecco: Application of plaque technique to animal viruses.

Discussion: Syvertson, Salk.

A. D. Hershey: Summary and conclusions regarding phages.

F. Horsfall: Summary and conclusions regarding animal viruses.